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YOUNG PEOPLE IN THE RURAL AREA – DEMOGRAPHIC TRENDS AND MILESTONES IN THE LAST 25 YEARS

ABSTRACT

This paper is part of a broad analysis of a socio-economic category of population that has (or should have) a major importance in the future of any country, as well in Romania, and which can determine the development of its living space, for the next 20 to 30 years. This category points to the young people living in rural areas.

Certainly, the attention should be focused on this population segment, not just because the young people are the future and they will shape the society in the future, but also because there are a lot of challenges in the rural area and the young people (aged 15–29 years) are one of the most vulnerable population segment, being the most exposed to the poverty risk. Insufficient training, low range of occupations and limited available jobs are just a few elements that determine this vulnerability of young people.

A statistical analysis of young people cannot have substance without putting them into a demographic context and then into a socio-economic context. This paper explores demographic trends and demographic milestones for this category of population over the last 25 years, thus providing general support (or demographic profile) for the socio-economic analysis of rural youth by highlighting the main specific indicators. Such indicators outline the portrait of young people in rural areas through a graphical presentation with immediate visual impact.

Key words: population, sex ratio, age distribution, rural, urban.

JEL Classification: J11, R10, R23.

1. INTRODUCTION

A profile of young people is absolutely necessary for the substantiation of regional and local strategies regarding the different aspects of population's participation to the economic and social life, age (age groups, differently analyzed), gender, migration, training and unemployment being only a few representative aspects in this sense.

In order to address the multiple challenges of rural areas in terms of the social component, it seemed opportune to put into the foreground one of the vulnerable categories in these areas, i.e. *the young people,* highlighting the extent to which young people have access to the jobs present on the labour market, as well as their professional training, adapted to the labour market needs.

The demographic component is thus only a part of the analysis of the young segment of the rural population, which is necessary to reveal the way in which one of the rural development policy objectives for the period 2014–2020, i.e. the balanced territorial development of rural communities, could contribute to the economic development of rural areas.

2. STATE OF KNOWLEDGE

In conformity with the EU Youth Strategy 2010–2018 (approved in November 2009), the main European objectives are the following: creation of education and employment opportunities for young people, social inclusion and youth solidarity. Young people's situation in Romania has common aspects with many European states in terms of unemployment, (absolute and relative) poverty rate, social exclusion and access to essential services (education, healthcare).

In this context, the National Youth Strategy 2015–2020, adopted in January 2015, has as main objective to support young people's active participation in the economic, social, cultural and political life, ensuring equal opportunities of access to education, employment and decent living conditions, also for those coming from the vulnerable groups that are mainly living in the rural area. The national interest is even more obvious than the European one, having in view Romania's specific situation, with over 3.4 million small farms (some of them at the limit of subsistence), with the largest part of the rural population working in a farming sector with the smallest yields in the EU. It is mainly in the rural area that young people (aged 15–29 years) represent one of the most vulnerable population segments, being the most exposed to poverty risk.

This young people's vulnerability to poverty comes from insufficient training, from the non-correlation of the education system, in terms of specialized training, with the rural labour market needs, as well as from the lack of multiple specialized training of young people, which could offer them various employment opportunities. Thus, Romania's rural space is characterized by a relatively high uniformity of occupations. The occupational specialization is low, as a great part of rural people can work only in agriculture. But this aspect is also determined by the weak representation of the other activity sectors in the rural area. As there is no particular specialization, the peasant household is the holder of the false attribute of being able to do everything, this meaning the activities related to the personal household and out of this reason the largest part of the rural population has low incomes.

Having in view the higher education opportunities provided by the urban area to young people, the scarcity of teaching staff in the rural localities (only one third of total teachers are working in the rural areas, although half of the country's population is living here), as well as the non-correlation of the educational system

(skills necessary in the rural area) to the rural labour market needs, there are ever increasing discrepancies between the two residence areas. Thus, an analysis of this rural population category is needed, in order to highlight the evolution and changes in its structure, in social and demographic terms, as well as its positioning in relation to the national level, to the urban area respectively.

Young people represent a segment of population that are mostly exposed to poverty risk in the rural area. This results from the limitation of jobs, both in number and diversity, as well as from the low training level, which is a general characteristic of the rural population. The particularities of this population category (revealed by indicators analyzed by age groups, gender, educational level, labour force by regions) shed light on the statistical reality of the rural area). And young people's profiling always has the demographic component as starting point.

3. MATERIAL AND METHOD

The data at the basis of the present analysis refer to the *rural area*, on a *25 years' period,* starting with the year 1992. *Young people were defined as persons aged 15–29 years*, and data on this age group was used in the analysis. There were situations when data was not available on this age group and in this case, we used data for the age group 15–24 years old.

One of the methods used for the preparation of the raw material for analysis was the custom database queries of the available official databases. The statistical analysis of youth in the rural area is based on the aggregate results of the NIS survey AMIGO (Household Labour Force Survey), through public database (Tempo Online) queries, followed by author's processing of data. In the present paper, we also used the results of the 2011 Census of Population and Dwellings (with author's processing of data), as well as of Eurostat and UN. Another method used in the present study was the filtering, collection and analysis of complementary information (internet, publications), based on a complex documentation of BigData type.

The results of this paper (part of a broader analysis of rural youth) are presented in an analysis of selected indicators. The demographic picture of young rural people is outlined, in a direct and accessible vision, through the graphic presentation of the main specific indicators. The results of Household Labour Force Survey (AMIGO), conducted by NIS, do not offer enough information for a deep analysis (for instance, at county level or by demographic characteristics – by gender, and, even by residence area for some indicators), which represents a limitation for the studies by counties and leads to a low level of detail. At the same time, the available information is often inconsistent or irrelevant (for instance, the analysis of some indicators at regional level can be hardly taken into consideration,

as this results from data signalled out as unreliable due to the low number of observations). Yet, in the absence of other consistent and representative data, the surveys remain the only data sources for making statistical analyses.
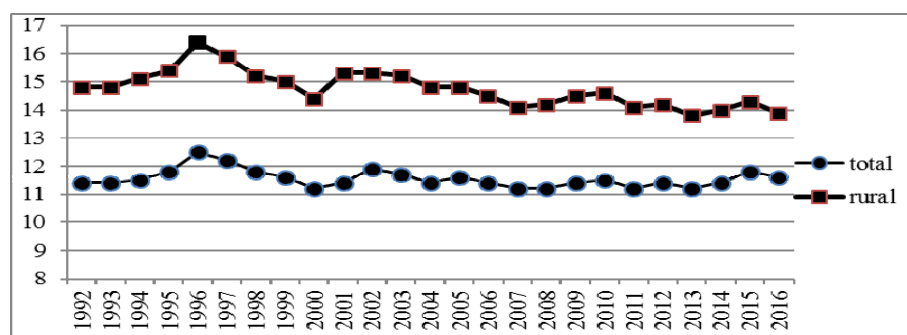
4. RESULTS AND DISCUSSIONS

The demographic evolutions have clearly influenced the development and structure of labour force in Romania, from the rural area inclusively. In order to have a most accurate picture of the rural economy, in terms of population's participation to the economic activity, we must point out to the *demographic framework* of the economic activity. The continuous population decline, the demographic ageing and a continuously high economic dependency rate are important phenomena that affect the labour market.

According to a study/report made by the Population Reference Bureau in the year 2017, Romania's population is expected to decrease by 6.4 million persons by the year 2050, being among the countries with decreasing populations until 2050. At the same time, the projections by the European Bank for Reconstruction and Development show that Romania's population will total about 14 million inhabitants by the year 2050. In its turn, the United Nations Organization is more optimistic, and considers that Romania's population will reach 15.9 million persons by the year 2050.

In the period 1992–2017, Romania's population decreased by 925 thousand persons, i.e. by 4%. In the rural area, the decrease was higher, as the rural population decreased by 916 thousand persons, i.e. 8.6 %.

This population decline must be considered with a certain reserve, as the number of the population was calculated without a realistic estimation of the external migration of the population. Migration represents an essential element of the changes in the population and impacts the natural population increase. Thus, there are major difficulties in the determination of the resident population, having in view the Romanian citizens' mobility in the Community area and not only. The absence of some complete data sources for a real estimation of emigrants is reflected in the determination of the number of resident population.

Three important factors contributed to population decrease in the period 1992–2016: external migration (negative, lower than natural increase in population), family planning (which determined the constant birth rate decrease – with values from 11.3% in the year 1992 to 8.6% in 2016) and high death rate throughout the period after 1992, with values from 11.4% in the year 1992 to 11.6% in the year 2016 (Fig. 1). The last factor, i.e. the high death rate, higher than the birth rate, led to a negative natural increase in population.
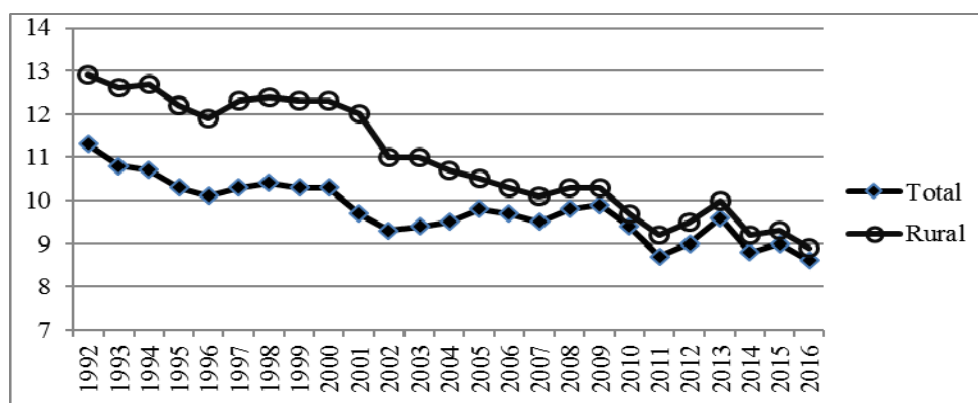
Figure 1. Death rate, in the period 1992–2017.

The situation at national level is also transposed on the *rural area,* yet with a stronger intensity. Although the birth rate in the rural area is higher than that at national level, this difference does not determine an increase in number of the rural population, and the death rate is higher than the national average, by 3%, throughout the analyzed period (Fig. 2).

It results that in the last 25 years, in Romania, the *natural increase in population was negative* (Fig. 3). After 1989, together with the political changes in our country, the natural increase in population decreased dramatically, the birth rate also significantly decreased, also as a result of the abrogation of regulations and restrictions referring to access to termination of pregnancy and abortion legalization.

A slight recovery tendency of the natural increase in population nationwide in the period 2005–2009 (due to the positive natural increase in the urban area) was stopped in the year 2009, when this began to decrease sharply. The same tendency was noticed in the rural area, where even though the situation slightly improved apparently, the natural increase in population remained negative (Fig. 3).

Figure 2. Birth rate, in the period 1992–2017.
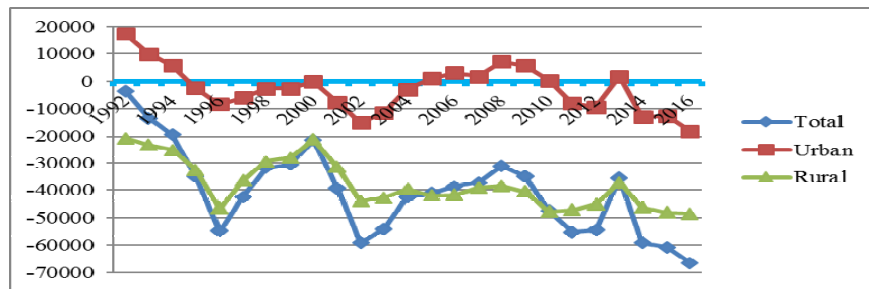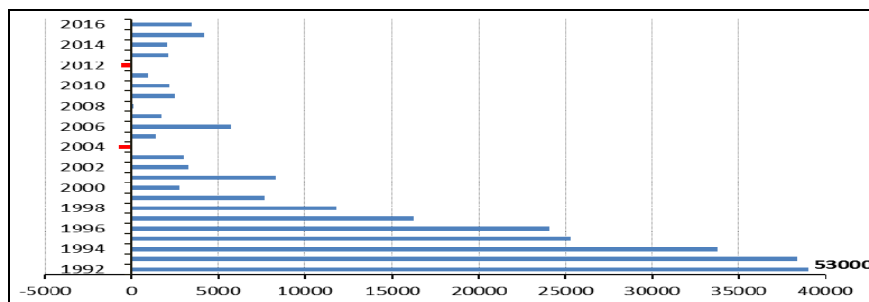
Source: NIS - Tempo Online

Figure 3. Natural increase in population, in the period 1992–2017.

4.1. MIGRATION BETWEEN RURAL AND URBAN AREA

In the last 25 years, we can notice that *one third of all migrants who left the rural area were young people aged 15-29 years.* At the beginning of the analyzed period, out of total people who left the rural area to establish their domicile elsewhere, almost half were young people aged 15-29 years. Although their share decreased continuously in the investigated period, the intensity of departures in young people was significant all these years, and in the year 2016 these accounted for one third of total departures from the rural area.

At the same time, we can see that out of total people who established their domicile in the rural area, one third were young people aged 15-29 years, at the beginning of the period. This proportion was maintained over almost the entire analyzed period: it is only spontaneously that the share of young people in total persons who established their domicile in the rural area decreased, at around 31% (in the years 1997, 2000 and 2007). This share was also maintained from 2012 to 2016, when it started to decrease continuously, to reach 28.7%.

On the other hand, we can see that in the last 25 years, the rural area had a net deficit of young people's migration (from 54111 young people in 1992 to 981 young people in 2011), that is more young people aged 15-29 years leave the rural area than arrive in the rural area (Fig. 4).

Source: author's calculations based on NIS - Tempo Online data

Figure 4. Net migration in the rural area, in the period 1992–2016.

An explanation to this trend could come from the mobility of young people (mainly of those who are not tied to a property or of those not having their own family), these not being constrained to remain in the same place.

These demographic trends have led to important changes in the age structure of the population and in the dependency rates by age, which implies certain major constraints to employment rate increase.

4.2. STRUCTURE OF POPULATION BY AGE GROUPS

An analysis of young people by age groups cannot be relevant without being put in context with the other age groups. In the last 25 years, we can notice that the young population segment in the rural area was under continuous decrease (together with segment of children – the population under 15 years old), while the share of adult and elderly people increased (Fig. 5).

The young population in the rural area accounted for almost one quarter of total rural population at the beginning of the analyzed period. This share constantly decreased in the 25 years, to reach less than one-fifth of total rural population by the year 2017 (19.5%). Thus, the young people lost 3.7 percentage points from their specific weight, while the children population lost, in its turn, 4.6 percentage points.

The intensification of decrease in these age groups grew stronger after 2006, when Romania joined the European Union, under the background of the continuous birth rate decrease (from 12.9 live births in 1000 inhabitants in 1992 to 8.9 live births in the year 2016, which is the last year when birth rate data are available). Thus, the share of young people aged 15-29 years decreased by 1.5% in the first 15 years of the investigated period and by 2% in only 10 years.
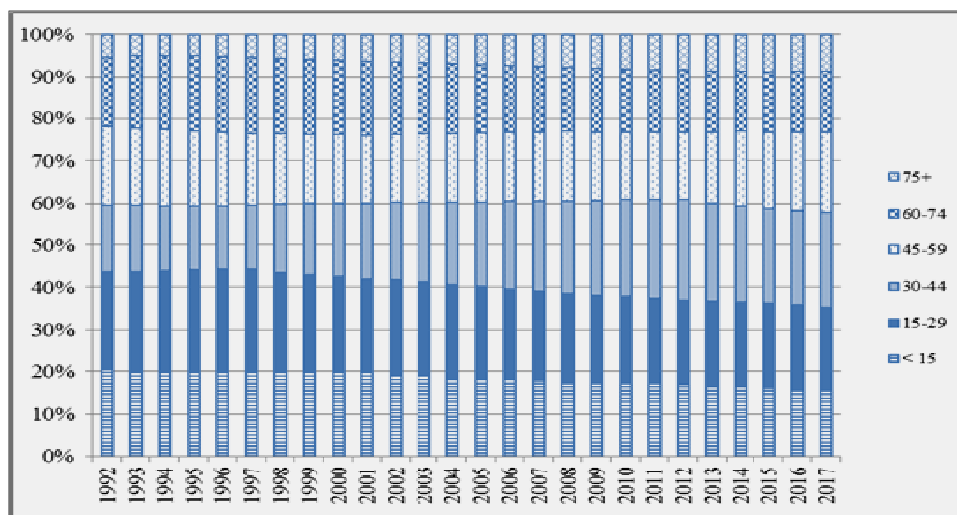
Source: author's calculations based on NIS - Tempo Online data

Figure 5. Rural population's distribution by age groups, in the period 1992–2017.

At the same time, a stronger decrease of the share of elderly people (65 years old and over) was noticed in the last 10 years (4.3 %), as against the first 15 years of the investigated period (4 %). These changes in the age structure of the population (increase in the elderly people's share (65 years and over) in total population, to the detriment of young people and children's share in total population) reveal and reconfirm the demographic ageing process, which is present in almost all the European countries; in Romania this process was mainly noticeable after the 1990s.

The diminution of the share of young people aged 15-29 years (by 3.7 % in the entire investigated period), in parallel to that of children under 15 years old, became more alarming starting with the years 2005-2006 (reference years for Romania's accession to the European Union), when the share of the old population, of 65 years old and over, exceeded that of children for the first time in the demographic history of Romania. As regards the share of young people aged 15-29 years in relation to the share of elderly people, we can notice that in 1992 the difference between the share of young people in total population and that of the elderly people in total population was 8.3 percentage points in favour of the young people; in the year 2017, this difference diminished 4 times (yet remaining in favour of young people).

Thus, it is expected that, under the conditions of continuous population decline (with similar trends of the factors influencing it), in a few years the old people share could exceed the share of young people, not only the share of children, which shows a serious demographic disequilibrium, with effects in all the spheres of human development.

As regards the adult population (30-64 years old), in the first 15 years of the investigated period, almost a linearity can be noticed in the share of adult population in total population (in this period, the share of adult population oscillated around the 41 %), while in the following 10 years, this share increased by almost 56 %.

In the period 1992-2017, certain particularities of the rural population can be noticed, by five-year age groups (Table 1), highlighting the previously mentioned evidence by large age groups (children, young people, adults, elderly people) or detailing them, as follows:

– in the population aged under 25 years, we can notice a continuous decrease of the share of each five-year group in total population: in the 0-4 years group, by 2.1%, with a stronger decrease in the first 15 years of the investigated period; in the

5-9 years group, by 1%; in the 10-14 years group by 1.5%, with a stronger decrease in the first 15 years;

– the decrease of the share of young people (15-29 years) in the investigated 25 years was the result of the diminution of the share of the 20-24 years old group and of the 15-19 years group by 3.4% and by 2.3% respectively (but not of the

share of young people aged 25-29 years, whose share in total population increased by 2% in 25 years, with a greater increase in the first 15 years).

– diminution of the share of population aged 50-69 years was greater in the first 15 years of the analyzed period, except for the group 60-64 years, where the entire decrease of the share of population from this age group was noticed in the first 15 years, while the next 10 years were marked by a slight and continuous increase.

– in the investigated period, the shares of population aged 25-49 years and of the population over 70 years old increased, mainly in the first 15 years.

The decline of total population in 2017 as against 1992 was also noticed in the group of young people 15-29 years, both per total and by rural residence area (Fig. 6).
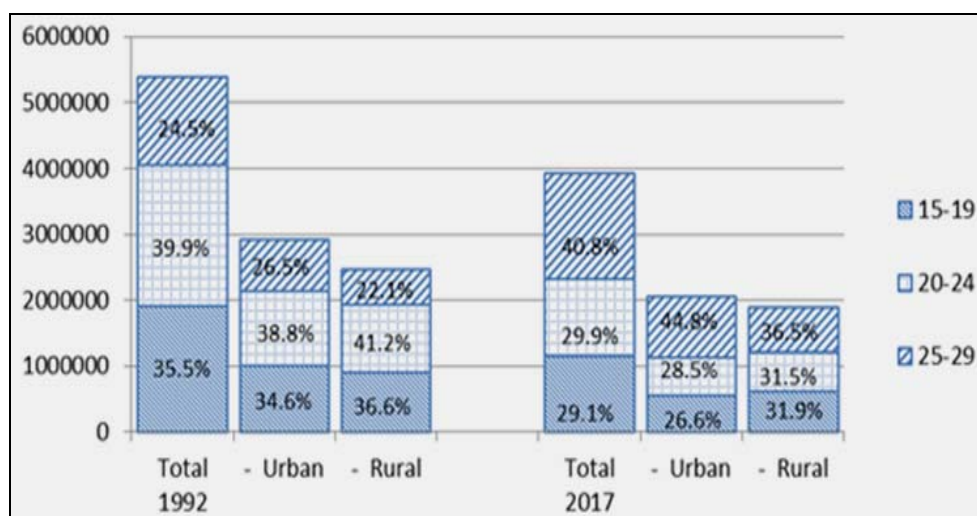
Source: author's calculations based on NIS - Tempo Online data

Figure 6. Distribution of the young population aged 15–29 years, by age groups and residence areas, in the years 1992 and 2017.

Thus, while in the year 1992, there were around 2.5 million young people in this age group, there were only 1.9 million in 2017. The difference of around 600,000 is difficult to evaluate, because only in the period 2008-2017 the migratory balance published by NIS in this age groups was about 318,000, without assessing the influence of the other demographic factors (births, deaths). These inconsistent data are not the best to use in a detailed analysis and out of this reason they must be considered with reserve.

4.3. DEMOGRAPHIC AGEING

Even though population's ageing refers to the elderly population, this impacts the whole population. Similarly to the situation at national level, the rural area is

facing the economic and social consequences (that affect school population, the fertile population and the population at working age) of a population under continuous demographic ageing process.

The *demographic ageing* is measured starting from the so called "old age threshold", that is the retirement age. At present, in the EU, this is established at 65 years. According to the UN, a population is on the demographic ageing threshold when the share of the population 65 years old and over in total population is 4-7%, while at 7% and over it is considered an already aged population.
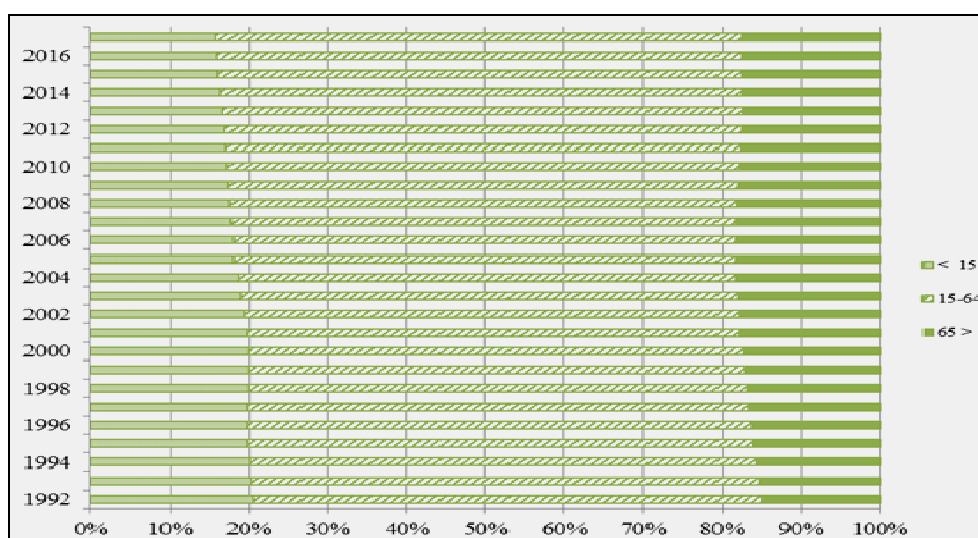
Source: author's calculations based on NIS - Tempo Online data

Figure 7. Structure of rural population, by large age groups, in the period 1992–2017.

In this sense, in the rural area, we can notice that, although the share of old population in total population was relatively constant in the last 25 years (from 15 to 17.6% at the beginning and respectively at the end of the analyzed period), this age group remained numerous, confirming an elderly population, which exceeds the demographic ageing threshold by more than 10%.

In parallel to the increase of rural elderly population (people aged 65 years and over), the share of children (0-14 years) had a decreasing evolution in the last 25 years, while the rural population of working age slightly increased (by 2%).

In the analyzed period, it can be noticed that the year 2005 was a turning point as regards the rural population structure by large age groups. For the first time in the last 25years, the shares reversed - the share of elderly population in total population exceeded that of children, a trend that continued in the next years, the share of young population being under continuous decrease, and as a result the existing unbalance between the young and old people grew larger.

The economic and social impact of the changes in the structure of the rural population by age groups can be revealed in the participation in the economic activity, the young population being the most vulnerable and exposed to poverty, in the case when the young people would not enter the labour market and in securing social security funds on large periods of time (necessary for the payment of pensions, for healthcare). Thus, disequilibria can be noticed between the young and old generations.

4.4. DEMOGRAPHIC DEPENDENCY RATE OF CHILDREN IN THE RURAL AREA

The age structure of population can be put into evidence by the age dependency rate, as it was described in the first part of this chapter – in general context, at national level.

Children's dependency rate (number of children under 15 years old in 1,000 persons of working age), as part of the total dependency rate (children and elderly people in 1,000 persons of working age), reveals the pressure put by children on the potential labour force population (i.e. the population of working age).

This indicator provides a picture of the number of children (population aged under 15 years) by comparison to the number of persons of working age. The higher this ratio, the more the persons of working age are confronted with a heavier burden in supporting the population under 15 years old, and it becomes difficult for the social security system to support this category (the same as in the case of elderly people, who are supported by the pension system also fed by the population of working age).

According to the study *Youth in Europe,* conducted by Eurostat, 2009 edition, in the near future, the share of children under 15 years old will continue to decrease, while the number of elderly people will increase. The projections of the age dependency ratio emphasize that by the year 2050, the population under 15 years old will account for less than one quarter of the working age persons (15-64 years old), while the elderly people will account for over 50% of the population of working age. The projections also show that by the year 2050, the young people's dependency rate will remain stable, while the elderly people's dependency rate will double.

In Romania, even though at national level the total demographic dependency ratio (total dependents – children under 15 years old and elderly people 65 years and over in 1,000 persons of working age) was maintained at about the same level, a different trend can be noticed in children's dependency.

Thus, in the analyzed period, both at national level and in the rural area, it can be noticed that the pressure exercised by children aged 15 years and over on the population of working age followed the same continuously decreasing trend, even more reduced in the rural area than at national level. Although this ratio is under continuous decrease, its values continue to be high, which means a big social and economic burden on the population of working age (Fig. 8).
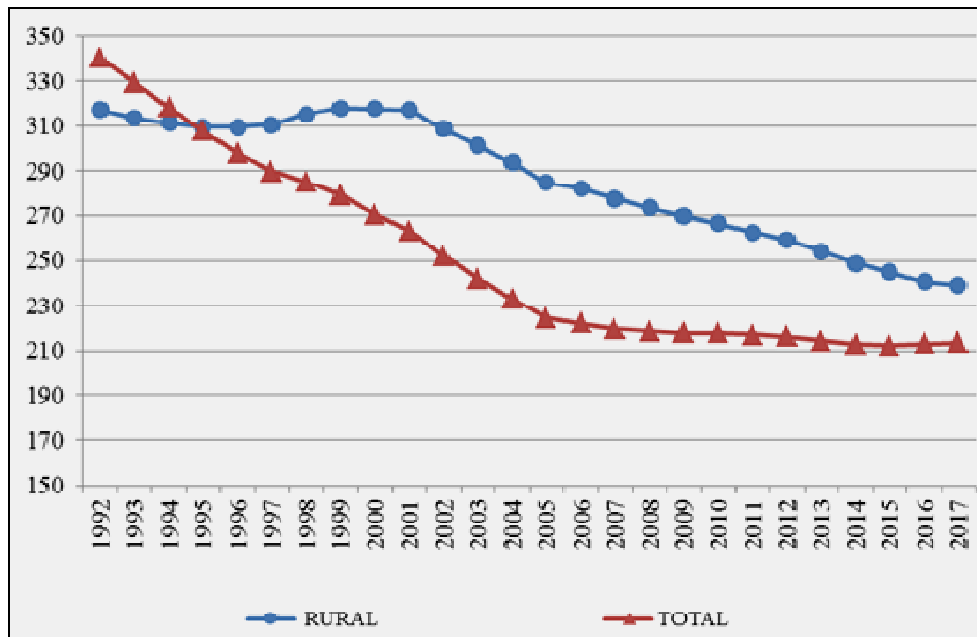
Source: author's calculations based on NIS - Tempo Online data

Figure 8. Demographic dependency ratio of young people, total and rural area, in the period 1992–2017.

4.5. LABOUR FORCE REPLACEMENT INDEX

An index that reveals the correlation between the population's structure by age groups and labour force is the labour replacement index, which marks the effects that certain age groups have upon the population aged under 15 years.

Thus, the population of working age includes several generations, which, as they are getting old, enter or exit the labour force market (mainly the young people, the repatriated and immigrants enter the labour market, and the retired persons, emigrants and the deceased persons exit the labour market).

In order to estimate whether the number of entering persons is large enough to replace the persons expected to leave the labour market, we calculated the labour force replacement index. This is calculated as percentage ratio of the population aged 20-29 years old to the population aged 55-64 years; this shows to what extent the young population (in our case, 20-29 years old) will be able to replace, after 10 years. the population who will retire from the labour market (55-64 years old).

The values greater than one of the labour force replacement index show that the labour force has the capacity/resources to replace itself, and the values less than one of this index show, as opposed to the values greater than one, that the labour force potential is not able to replace itself, and it lacks the necessary resources to be maintained in a demographic and occupational balance.

Analyzing this index over time (in the last 25 years), we can notice the increasing trend nationwide in the first 15 years, followed by a continuous decrease in the following years (to reach a minimum greater than one value – 1 in the year 2017), the same trend being manifested by *residence areas*, yet with different time positionings (Fig. 9).

Source: author's calculations based on NIS - Tempo Online data

Figure 9. Labour force replacement index, by residence areas, in the period 1992–2017.

Thus, in the urban area, in the first 12 years, we can notice a continuous increase of this index, followed by a decrease, year by year, reaching a value less than one in the year 2015. Thus, while in the first 22 years of the analyzed period, the labour force replacement index was greater than one, which reveals a surplus of labour force, in the last 3 years the situation reversed, and the labour force replacement index became less than one, suggesting a deficit of urban labour force.

In the rural area, we can notice a certain linearity (slight increase in the first 10 years, followed by stagnation from the years 2000 to 2007; after 2007 the value of this index decreased each year, to reach in 2017 almost its level in 1992. Thus, the labour force replacement index in the rural area was greater than one, similarly to that at national level, in the whole investigated period, so that we can say that in 10 years, the 1,000 persons that will exit from the labour market will be replaced by more than 1,000 persons, which means that we can speak about a surplus of labour. Apparently, this is a favorable situation, but it is noticed at a certain moment, yet without being a forecast, which also takes into consideration some other factors that influence the population (migration, death rate, birth rate, etc.).
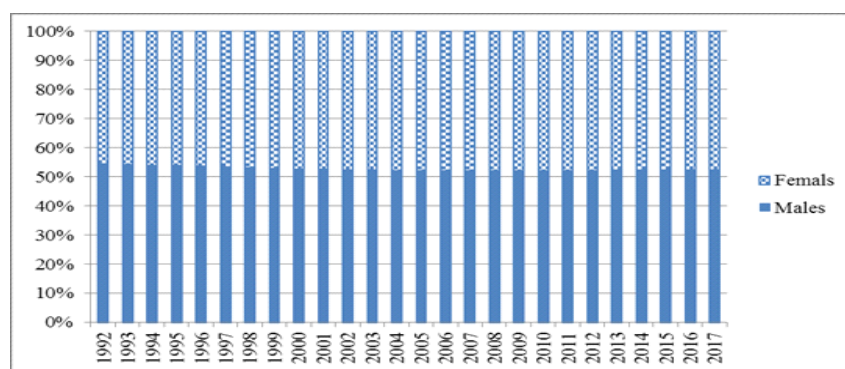
4.6. GENDER STRUCTURE OF THE YOUNG PEOPLE

By genders, the situation is slightly different, in favour of the male population, which means that in the rural area, in 10 years, 1,000 men exiting from activity (that is, they will not be in the category of the employed) will be replaced by other 1,073 men. At the level of the year 2017, men represented 48.8% of the total population, slightly decreasing compared to the year before Romania's accession to the EU and women represented 51.2% of the total population. By counties, the structure by genders was similar to that at national level, and its evolution in the last ten years remained almost linear.

The correlated analysis of the population structure by genders and age groups reveals that the higher share of women is not specific for all age groups. Thus, the low masculinity rate (the number of persons of masculine gender in 100 persons of feminine gender) is not specific for all age groups. Thus, in the year 2016, it is noticed that from birth until the age group 40-44 years, the male population prevailed, while in the age group 50-54 years there was a gender balancing, and then the women population prevailed in total population.

Thus, at national level, the feminine population' share was and still is higher than that of male population, although, at birth, there is a reversed situation (more boys than girls are born). However, in the rural area, time-related particularities can be noticed, as regards the structure by genders of the population:

- in the first two years of the investigated period, as well as in the years 2011 and 2012, an equilibrium between the two genders can be noticed (in absolute and relative terms);

- in the period 1994–2010, the tendency at national level is similar to that in the rural area, with a prevailing feminine population;

- since 2013 until the present moment, the male population in the rural area prevails.

Throughout the investigated period, men prevailed in the young people aged 15-29 years in the rural area, their share in total rural population being over 52% (Fig.10).

Source: author's calculations based on NIS - Tempo Online data

Figure 10. Structure of young people by genders, in the period 1992–2017.

A relevant indicator for the population structure by genders is the ***masculinity index*** (the number of persons of masculine gender in 100 persons of feminine gender). In the last ten years, at national level, the masculinity index was less than one. This reveals, once again, the prevalence of women in the population.

The same trend noticed at national level can be found in the rural area, in almost the entire analyzed period, i.e. a masculinity index less than one.

The masculinity ratio of the young people aged 15-29 years in the rural area was greater than one throughout the investigated period, thus there were 119 young men in 100 young women, in the year 1992, and 110 young men, in the year 2017.

5. CONCLUSIONS

A first natural conclusion highlights, once again, that population is the main element of a country's development, and the policy makers must have in view the implementation of clear measures to redress the demographic situation, which should be included in the national strategy for the country's sustainable development.

From the UN estimates, revised in December 2015, on the migratory balance, the percentage of youth from the age group 15-29 years in Romania increased from 1.5% to 21.4%. The author did not identify available data by residence areas, but from more or less official sources, the emigration rate from the rural area is lower than that from the urban environment.

In NIS statistics, data on migration are inconsistent, the methodology used is not fully harmonized, data for the definitive emigration are presented from 1992 to 2016 (change of official residence) and estimated data on external temporary migration (unofficial change of residence – de facto – more than 12 months) are presented for the period 2008 – 2016. These data cannot be compared with the data estimated by the UN, as referred above.

Conclusive elements:

1. the rural – urban discrepancies tend to grow larger.

- different higher education opportunities
- acute shortage of teachers in the rural areas
- non-correlating the education system (necessary specializations in the rural area) to the rural labour market needs

2. youth, mainly in the rural area, is exposed to poverty risk

- limitation of jobs, both in number and as job diversity
- low training level

3. the demographic framework in which the economic activity takes place is determinant for the labour market in the rural area (as well as nationwide) and it is characterized by:

- continuous population decline

- demographic ageing

- high economic dependency rate.

4. the external and internal migration is higher for the rural area

- one third of migrants, from and to the rural area, are young people – motivations are different;

5. the total demographic dependency ratio is relatively constant in the analyzed period;

6. the children's dependency rate, although still high, has decreased, both at national level and even more in the rural area;

7. the replacement index reveals a relatively favourable situation – labour force surplus;

In support to the first conclusion, we need major changes in the official collection of necessary data, as in the absence of thorough knowledge, both at indicator level and at small geographic level and by years at least, basic and solid grounded analyzes cannot be made.

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